1. (Thrice Amended)

A method of manufacturing a thin film resistor with a moisture barrier comprising:

depositing a non-tantalum metal film resistive layer on a thin film resistor substrate;

attaching a thin film resistor termination on each end of the metal film resistive layer; and

depositing the moisture barrier comprising a layer of tantalum pentoxide film directly overlaying and attaching to the metal film resistive layer to reduce failures due to electrolytic corrosion under powered moisture conditions.

15. (Twice Amended)

A method of manufacturing a thin film resistor with a moisture barrier comprising:

depositing a non-tantalum metal film resistive layer on a substrate;

attaching a termination on each end of the metal film resistive layer;

depositing a passivation layer directly overlaying and attaching to the metal film layer; and

depositing the moisture barrier comprising a layer of tantalum pentoxide film directly overlaying and attaching to the passivation layer for reducing failures due to electrolytic corrosion under powered moisture conditions.